

# **FW7804-FNC**

## 2MP Mini Speed Dome

FW7804-FNC is a 2M Mini Speed Dome camera which equipped with a 2MP Progressive Scan CMOS image Sensor supports simultaneous H.265, H.264 and MJPEG Video Compression, less network bandwidth and storage space required. FW7804-FNC also delivers high quality video at 30 fps@ Full HD in progressive mode. it will provide the best IP surveillance solution with a remote monitoring via the Pan / Tilt / Zoom, RS232, two-way Audio, Motion Detection

## **Key Features**

- Ambarella platform Backdoor Issue free
- Panasonic 1/3" 2MP Panasonic CMOS sensor
- Optical 10x zoom, Digital 32x zoom
- · Quadruple Streaming
- Max. 30fps @ 2M (1920 x 1080)s
- · Various Back light mode of WDR, BLC, HLC
- · ONVIF Profile S standard



**Indoor Type** 

### **Tech Notes**

#### Powerful H.265 codec

H.265 codec gives more efficient file size than previous H.264 to save storage and bandwidth. Also to have interoperability with legacy systems

#### **Optimized Multiple Profile Streaming**

Up to 4 streams are able to be set by different setting parameters such as res. video rate and frame rate to be serviced for different purposes



# FW7804-FNC

# **Technical Specifications**









Image Sensor	Camera	
Lens	Image Sensor	1/3" Panasonic 2.48MP CMOS
FOV(H): 54.0 '~ 4.9'	Lens	Optical 10x (Digital 32x)
Day & Night         True Day & Night (ICR)           Min. Illumination         Color 1/30s : 0.05 lux, B&W 1/30s : 0.005 lux Color DSS on : 0.002 lux, B&W : 0.0001 lux           IR illumination         -           Pan : 360 * Endless / Tilt : 0-90 * Preset 500 */sec, JOG 0.05 * ~ 360 */sec (zoom proportional)           Optical Zoom 10x, Digital Zoom 32x (Total 320x) 209 Presets, 4 Patterns, 10 Swing, 8 Group, 8 Schedules.           Auto flip, Auto parking, Power-up action. Text display by 8 Pan angles.           Video Stream           System         Ambarella 32bit Embedded Linux 256Mbyte SDRAM, 128Mbyte NAND Flash           Compression         H. 265, H. 264, M-JPEG, JPEG           Video Stream         Quadruple Streaming           Resolution         440x480, 320x240           Max. Frame rate         Max. 30fps/26ps @ 2MP           Bit Rate Control         VBR/AVBR/CBR/ACBR, GOP           Video Setting         VBR/AVBR/CBR/ACBR, GOP           Exposure Control Mode         Auto/ Manual/ Shutter Priority/ Iris Priority           Focus Control         Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger           Electronic Shutter         1/6-1/30,000s           Exposure Compensation         -12dB ~ +12dB           Slow Shutter         Off / On           AGC         0 ~ 10           Back Light		f=5.1~51.0mm (F1.6~F1.8)
Min. Illumination         Color 1/30s: 0.05 lux, B&W 1/30s: 0.005 lux Color DSS on: 0.002 lux, B&W: 0.0001 lux           IR illumination         -           Pan: 360 * Endless / Tilt: 0~90 * Preset 500 */sec, JOG 0.05 * ~ 360 */sec (zoom proportional)           Optical Zoom 10x, Digital Zoom 32x (Total 320x) 209 Presets, 4 Patterns, 10 Swing, 8 Group, 8 Schedules.           Auto flip, Auto parking, Power-up action. Text display by 8 Pan angles.           Video Stream         Ambarella 32bit Embedded Linux 256Mbyte SDRAM, 128Mbyte NAND Flash           Compression         H. 265, H. 264, MJPEG, JPEG           Video Stream         Quadruple Streaming           Resolution         1920x1080, 1280x1024, 1280x720, 704x480, 640x480, 320x240           Max. Frame rate         Max. 30fps/25fps @ 2MP           Bit Rate Control         VBR/AVBR/CBR/ACBR, GOP           Video Setting         Exposure Control Mode         Auto/ Manual/ Shutter Priority/ Iris Priority           Focus Control         Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger           Electronic Shutter         1/6~1/30,000s           Exposure Compensation         -12dB ~ +12dB           Slow Shutter         Off / On           AGC         0 ~ 10           Back Light Mode         BLC, HLC, WDR, ACE           Day-Night Mode         Auto/ Day/ Night           White Balance <td>FOV(H): 54.0°~4.9°</td>		FOV(H): 54.0°~4.9°
Nin. Illumination	Day & Night	True Day & Night (ICR)
Color DSS on : 0.002 lux, B&W : 0.0001 lux	AA' - HI ' C' -	Color 1/30s : 0.05 lux, B&W 1/30s : 0.005 lux
Pan : 360 * Endless / Tilt : 0-90 *	Min. Illumination	Color DSS on : 0.002 lux, B&W : 0.0001 lux
Preset 500 '/sec, JOG 0.05 ' ~ 360 '/sec (zoom proportional)   Optical Zoom 10x, Digital Zoom 32x (Total 320x) 209 Presets, 4 Patterns, 10 Swing, 8 Group, 8 Schedules.   Auto flip, Auto parking, Power-up action. Text display by 8 Pan angles.	IR illumination	-
Pan Tilt Zoom Pan Tilt Zoom Presets, 4 Patterns, 10 Swing, 8 Group, 8 Schedules. Auto flip, Auto parking, Power-up action. Text display by 8 Pan angles.  Video Stream  System Ambarella 32bit Embedded Linux 256Mbyte SDRAM, 128Mbyte NAND Flash Compression H.265, H.264, M-JPEG, JPEG Video Stream Quadruple Streaming Presolution Resolution Presented Max. 30fps/25fps @ 2MP Bit Rate Control VBR/AVBR/CBR/ACBR, GOP Video Setting Exposure Control Mode Auto/ Manual/ Shutter Priority/ Iris Priority Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger Electronic Shutter 1/6-1/30,000s Exposure Compensation 1-12dB ~ +12dB Slow Shutter Off / On AGC 0 ~ 10 Back Light Mode BLC, HLC, WDR, ACE Day-Night Mode Auto/ Day/ Night White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual Digital Noise Reduction Off / Auto/ Low/ Mid/ High Image Adjustment HLC, Stabilizer, Gamma Text OSD 9 lines, settable size, color, position, etc. Smart Video ROI (Region of Interest) 8 areas Privacy Masking 8 Areas Analytics Motion Detection - Video Analytic Video Analytic Video Analytic Focial Timpering, Face Detection		Pan : 360 ° Endless / Tilt : 0~90 °
Pan Tilt Zoom  Optical Zoom 10x, Digital Zoom 32x (Total 320x) 209 Presets, 4 Patterns, 10 Swing, 8 Group, 8 Schedules. Auto flip, Auto parking, Power-up action. Text display by 8 Pan angles.  Video Stream  System  Ambarella 32bit Embedded Linux 256Mbyte SDRAM, 128Mbyte NAND Flash  Compression  H.265, H.264, MJPEG, JPEG  Video Stream  Quadruple Streaming  Resolution  640x480, 320x240  Max. Frame rate  Max. 30fps/25fps @ 2MP  Bit Rate Control  VBR/AVBR/CBR/ACBR, GOP  Video Setting  Exposure Control Mode  Auto/ Manual/ Shutter Priority/ Iris Priority  Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter  1/6-1/30,000s  Exposure Compensation  -12dB ~ +12dB  Slow Shutter  Off / On  AGC  0 ~ 10  Back Light Mode  BLC, HLC, WDR, ACE  Day-Night Mode  Auto/ Day/ Night  White Balance  Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction  Off/ Auto/ Low/ Mid/ High  Image Adjustment  HLC, Stabilizer, Gamma  Text OSD  9 lines, settable size, color, position, etc.  Smart Video  ROI (Region of Interest) 8 areas  Analytics  Motion Detection  -  Video Analytic  (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection		Preset 500 $^{\circ}/\text{sec},$ JOG 0.05 $^{\circ}$ ~ 360 $^{\circ}/\text{sec}$ (zoom
Pan Tilt Zoom         209 Presets, 4 Patterns, 10 Swing, 8 Group, 8 Schedules.		proportional)
209 Presets, 4 Patterns, 10 Swing, 8 Group, 8 Schedules. Auto flip, Auto parking, Power-up action. Text display by 8 Pan angles.  Video Stream  Ambarella 32bit Embedded Linux 256Mbyte SDRAM, 128Mbyte NAND Flash  Compression H.265, H.264, M.JPEG, JPEG  Video Stream Quadruple Streaming  Resolution 1920x1080, 1280x1024, 1280x720, 704x480, 640x480, 320x240  Max. Frame rate Max. 30fps/25fps @ 2MP  Bit Rate Control VBR/AVBR/CBR/ACBR, GOP  Video Setting  Exposure Control Mode Auto/ Manual/ Shutter Priority/ Iris Priority  Focus Control 20m Trigger/ Interval Trigger  Electronic Shutter 1/6~1/30,000s  Exposure Compensation -12dB ~ +12dB  Slow Shutter Off / On  AGC 0 ~ 10  Back Light Mode BLC, HLC, WDR, ACE  Day-Night Mode Auto/ Day/ Night  White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction Off/ Auto/ Low/ Mid/ High  Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Pan Tilt Zoom	Optical Zoom 10x, Digital Zoom 32x (Total 320x)
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Text display by 8 Pan angles.  Video Stream  Ambarella 32bit Embedded Linux 256Mbyte SDRAM, 128Mbyte NAND Flash  Compression H.265, H.264, M-JPEG, JPEG  Video Stream Quadruple Streaming  Resolution 1920x1080, 1280x1024, 1280x720, 704x480, 640x480, 320x240  Max. Frame rate Max. 30fps/25fps @ 2MP  Bit Rate Control VBR/AVBR/CBR/ACBR, GOP  Video Setting  Exposure Control Mode Auto/ Manual/ Shutter Priority/ Iris Priority  Focus Control Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter 1/6-1/30,000s  Exposure Compensation -12dB ~ +12dB  Slow Shutter Off / On  AGC 0 ~ 10  Back Light Mode BLC, HLC, WDR, ACE  Day-Night Mode Auto/ Day/ Night  White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction Off/ Auto/ Low/ Mid/ High  Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection		Schedules.
System  Ambarella 32bit Embedded Linux 256Mbyte SDRAM, 128Mbyte NAND Flash  Compression  H.265, H.264, M-JPEG, JPEG  Video Stream  Quadruple Streaming  Resolution  Aux. Frame rate  Max. 30fps/25fps @ 2MP  Bit Rate Control  VBR/AVBR/CBR/ACBR, GOP  Video Setting  Exposure Control Mode  Auto/ Manual/ Shutter Priority/ Iris Priority  Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter  1/6-1/30,000s  Exposure Compensation  -12dB ~ +12dB  Slow Shutter  Off / On  AGC  0 ~ 10  Back Light Mode  Auto/ Day/ Night  White Balance  Auto/ Day/ Night  Mode  Auto/ Day/ Night  HLC, Stabilizer, Gamma  Text OSD  9 lines, settable size, color, position, etc.  Smart Video  ROI (Region of Interest) 8 areas  Analytics  Motion Detection  - Video Analytic  Video Analytic  Video Analytic  Ambarella 32bit Embedded Linux 256Mbyte SDRAM, 128Mbyte NAND Flash  H.265, H.264, M-JPEG, JPEG  Water Suparation  1920x1080, 1280x720, 704x480,  640x480, 320x240  Max. 30fps/25fps @ 2MP  Auto/ Manual/ Shutter Priority/ Iris Priority  Auto Focus, 1280x720, 704x480,  640x480, 320x240  Auto/ Manual/ Shutter Priority/ Iris Priority  Auto Focus, 1280x720, 704x480,  640x480, 320x240  Auto/ Manual/ Shutter Priority/ Iris Priority  Auto Focus, 1280x720, 704x480,  640x480, 320x240  Auto Focus, 1280x121  Focus of Maxima Priority  Auto Focus, 1280x121  Focus of Priority  Auto Focus, 1280x121  Focus of Maxima Priority  Auto F		Auto flip, Auto parking, Power-up action.
Ambarella 32bit Embedded Linux 256Mbyte SDRAM, 128Mbyte NAND Flash  Compression H.265, H.264, M-JPEG, JPEG  Video Stream Quadruple Streaming 1920x1080, 1280x1024, 1280x720, 704x480, 640x480, 320x240  Max. Frame rate Max. 30fps/25fps @ 2MP  Bit Rate Control VBR/AVBR/CBR/ACBR, GOP  Video Setting Exposure Control Mode Auto/ Manual/ Shutter Priority/ Iris Priority  Focus Control Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter 1/6-1/30,000s Exposure Compensation -12dB ~ +12dB  Slow Shutter Off / On  AGC 0 ~ 10  Back Light Mode BLC, HLC, WDR, ACE  Day-Night Mode Auto/ Day/ Night  White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction Off/ Auto/ Low/ Mid/ High  Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Analytics  Motion Detection - Video Analytic  Video Analytic  Tripwire, Tampering, Face Detection		Text display by 8 Pan angles.
System  256Mbyte SDRAM, 128Mbyte NAND Flash  Compression  H.265, H.264, M-JPEG, JPEG  Video Stream  Quadruple Streaming  1920x1080, 1280x1024, 1280x720, 704x480, 640x480, 320x240  Max. Frame rate  Max. 30fps/25fps @ 2MP  Bit Rate Control  Video Setting  Exposure Control Mode  Auto/ Manual/ Shutter Priority/ Iris Priority  Focus Control  Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter  1/6-1/30,000s  Exposure Compensation  -12dB ~ +12dB  Slow Shutter  Off / On  AGC  0 ~ 10  Back Light Mode  BLC, HLC, WDR, ACE  Day-Night Mode  Auto/ Day/ Night  White Balance  Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction  Off/ Auto/ Low/ Mid/ High  Image Adjustment  HLC, Stabilizer, Gamma  Text OSD  9 lines, settable size, color, position, etc.  Smart Video  ROI (Region of Interest) 8 areas  Privacy Masking  8 Areas  Analytics  Motion Detection  -  Video Analytic  Video Analytic  Tripwire, Tampering, Face Detection	Video Stream	
Z56Mbyte SDRAM, 128Mbyte NAND Flash Compression H.265, H.264, M-JPEG, JPEG Video Stream Quadruple Streaming 1920x1080, 1280x1024, 1280x720, 704x480, 640x480, 320x240 Max. Frame rate Max. 30fps/25fps @ 2MP Bit Rate Control VBR/AVBR/CBR/ACBR, GOP Video Setting Exposure Control Mode Auto/ Manual/ Shutter Priority/ Iris Priority Focus Control Zoom Trigger/ Interval Trigger Electronic Shutter 1/6~1/30,000s Exposure Compensation -12dB ~ +12dB Slow Shutter Off / On AGC 0 ~ 10 Back Light Mode BLC, HLC, WDR, ACE Day-Night Mode Auto/ Day/ Night White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual Digital Noise Reduction Off/ Auto/ Low/ Mid/ High Image Adjustment HLC, Stabilizer, Gamma Text OSD 9 lines, settable size, color, position, etc. Smart Video ROI (Region of Interest) 8 areas Privacy Masking 8 Areas Analytics Motion Detection - Video Analytic Tripwire, Tampering, Face Detection	System	Ambarella 32bit Embedded Linux
Video Stream       Quadruple Streaming         Resolution       1920x1080, 1280x1024, 1280x720, 704x480, 640x480, 320x240         Max. Frame rate       Max. 30fps/25fps @ 2MP         Bit Rate Control       VBR/AVBR/CBR/ACBR, GOP         Video Setting       VBR/AVBR/CBR/ACBR, GOP         Exposure Control Mode       Auto/ Manual/ Shutter Priority/ Iris Priority         Focus Control       Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger         Electronic Shutter       1/6~1/30,000s         Exposure Compensation       -12dB ~ +12dB         Slow Shutter       Off / On         AGC       0 ~ 10         Back Light Mode       BLC, HLC, WDR, ACE         Day-Night Mode       Auto/ Day/ Night         White Balance       Auto/ Indoor/ Outdoor/ OnePush/ Manual         Digital Noise Reduction       Off/ Auto/ Low/ Mid/ High         Image Adjustment       HLC, Stabilizer, Gamma         Text OSD       9 lines, settable size, color, position, etc.         Smart Video       ROI (Region of Interest) 8 areas         Privacy Masking       8 Areas         Analytics       Motion Detection         Video Analytic       (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection		256Mbyte SDRAM, 128Mbyte NAND Flash
Resolution  1920x1080, 1280x1024, 1280x720, 704x480, 640x480, 320x240  Max. Frame rate  Max. 30fps/25fps @ 2MP  Bit Rate Control  VBR/AVBR/CBR/ACBR, GOP  Video Setting  Exposure Control Mode  Auto/ Manual/ Shutter Priority/ Iris Priority  Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter  1/6~1/30,000s  Exposure Compensation  -12dB ~ +12dB  Slow Shutter  Off / On  AGC  0 ~ 10  Back Light Mode  BLC, HLC, WDR, ACE  Day-Night Mode  Auto/ Day/ Night  White Balance  Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction  Off/ Auto/ Low/ Mid/ High  Image Adjustment  HLC, Stabilizer, Gamma  Text OSD  9 lines, settable size, color, position, etc.  Smart Video  ROI (Region of Interest) 8 areas  Privacy Masking  8 Areas  Analytics  Motion Detection  -  Video Analytic  (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Compression	H.265, H.264, M-JPEG, JPEG
Resolution  640x480, 320x240  Max. Frame rate  Max. 30fps/25fps @ 2MP  Bit Rate Control  VBR/AVBR/CBR/ACBR, GOP  Video Setting  Exposure Control Mode  Auto/ Manual/ Shutter Priority/ Iris Priority  Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter  1/6~1/30,000s  Exposure Compensation  -12dB ~ +12dB  Slow Shutter  Off / On  AGC  0 ~ 10  Back Light Mode  BLC, HLC, WDR, ACE  Day-Night Mode  Auto/ Day/ Night  White Balance  Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction  Off/ Auto/ Low/ Mid/ High  Image Adjustment  HLC, Stabilizer, Gamma  Text OSD  9 lines, settable size, color, position, etc.  Smart Video  ROI (Region of Interest) 8 areas  Analytics  Motion Detection  4 areas  Object Detection  -  (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Video Stream	Quadruple Streaming
Max. Frame rate Max. 30fps/25fps @ 2MP  Bit Rate Control VBR/AVBR/CBR/ACBR, GOP  Video Setting  Exposure Control Mode Auto/ Manual/ Shutter Priority/ Iris Priority  Focus Control Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter 1/6~1/30,000s  Exposure Compensation -12dB ~ +12dB  Slow Shutter Off / On  AGC 0 ~ 10  Back Light Mode BLC, HLC, WDR, ACE  Day-Night Mode Auto/ Day/ Night  White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction Off/ Auto/ Low/ Mid/ High  Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection 4 areas  Object Detection  (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Resolution	1920x1080, 1280x1024, 1280x720, 704x480,
Bit Rate Control Video Setting Exposure Control Mode Auto/ Manual/ Shutter Priority/ Iris Priority  Focus Control Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter 1/6~1/30,000s Exposure Compensation -12dB ~ +12dB Slow Shutter Off / On AGC 0 ~ 10  Back Light Mode BLC, HLC, WDR, ACE  Day-Night Mode Auto/ Day/ Night White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual Digital Noise Reduction Off/ Auto/ Low/ Mid/ High Image Adjustment HLC, Stabilizer, Gamma Text OSD 9 lines, settable size, color, position, etc. Smart Video ROI (Region of Interest) 8 areas Privacy Masking 8 Areas  Analytics Motion Detection - Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	resolution	640x480, 320x240
Video Setting  Exposure Control Mode  Auto/ Manual/ Shutter Priority/ Iris Priority  Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter  1/6~1/30,000s  Exposure Compensation  -12dB ~ +12dB  Slow Shutter  Off / On  AGC  0 ~ 10  Back Light Mode  BLC, HLC, WDR, ACE  Day-Night Mode  Auto/ Day/ Night  White Balance  Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction  Off/ Auto/ Low/ Mid/ High  Image Adjustment  HLC, Stabilizer, Gamma  Text OSD  9 lines, settable size, color, position, etc.  Smart Video  ROI (Region of Interest) 8 areas  Analytics  Motion Detection  4 areas  Object Detection  -  (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Max. Frame rate	Max. 30fps/25fps @ 2MP
Exposure Control Mode  Auto Manual/ Shutter Priority/ Iris Priority  Focus Control  Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter  1/6~1/30,000s  Exposure Compensation  -12dB ~ +12dB  Slow Shutter  Off / On  AGC  0 ~ 10  Back Light Mode  BLC, HLC, WDR, ACE  Day-Night Mode  Auto/ Day/ Night  White Balance  Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction  Off/ Auto/ Low/ Mid/ High  Image Adjustment  HLC, Stabilizer, Gamma  Text OSD  9 lines, settable size, color, position, etc.  Smart Video  ROI (Region of Interest) 8 areas  Privacy Masking  8 Areas  Analytics  Motion Detection  -  (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Bit Rate Control	VBR/AVBR/CBR/ACBR, GOP
Focus Control  Auto Focus/ Manual Focus/ Manual Trigger/ Zoom Trigger/ Interval Trigger  Electronic Shutter  1/6~1/30,000s  Exposure Compensation -12dB ~ +12dB  Slow Shutter  Off / On  AGC  0 ~ 10  Back Light Mode  BLC, HLC, WDR, ACE  Day-Night Mode  Auto/ Day/ Night  White Balance  Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction  Off/ Auto/ Low/ Mid/ High  Image Adjustment  HLC, Stabilizer, Gamma  Text OSD  9 lines, settable size, color, position, etc.  Smart Video  ROI (Region of Interest) 8 areas  Privacy Masking  8 Areas  Analytics  Motion Detection  -  (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Video Setting	
Electronic Shutter 1/6~1/30,000s  Exposure Compensation -12dB ~ +12dB  Slow Shutter Off / On  AGC 0 ~ 10  Back Light Mode BLC, HLC, WDR, ACE  Day-Night Mode Auto/ Day/ Night  White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction Off/ Auto/ Low/ Mid/ High  Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection 4 areas  Object Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Exposure Control Mode	Auto/ Manual/ Shutter Priority/ Iris Priority
Electronic Shutter 1/6~1/30,000s  Exposure Compensation -12dB ~ +12dB  Slow Shutter Off / On  AGC 0 ~ 10  Back Light Mode BLC, HLC, WDR, ACE  Day-Night Mode Auto/ Day/ Night  White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction Off/ Auto/ Low/ Mid/ High  Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection 4 areas  Object Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Focus Control	Auto Focus/ Manual Focus/ Manual Trigger/
Exposure Compensation  -12dB ~ +12dB  Slow Shutter  Off / On  AGC  0 ~ 10  Back Light Mode  BLC, HLC, WDR, ACE  Day-Night Mode  Auto/ Day/ Night  White Balance  Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction  Off/ Auto/ Low/ Mid/ High  Image Adjustment  HLC, Stabilizer, Gamma  Text OSD  9 lines, settable size, color, position, etc.  Smart Video  ROI (Region of Interest) 8 areas  Privacy Masking  8 Areas  Analytics  Motion Detection  4 areas  Object Detection  -  (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Focus Control	Zoom Trigger/ Interval Trigger
Slow Shutter Off / On  AGC 0 ~ 10  Back Light Mode BLC, HLC, WDR, ACE  Day-Night Mode Auto/ Day/ Night  White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction Off/ Auto/ Low/ Mid/ High  Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection 4 areas  Object Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Electronic Shutter	1/6~1/30,000s
AGC 0 ~ 10  Back Light Mode BLC, HLC, WDR, ACE  Day-Night Mode Auto/ Day/ Night  White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction Off/ Auto/ Low/ Mid/ High  Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection 4 areas  Object Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Exposure Compensation	-12dB ~ +12dB
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Day-Night Mode Auto/ Day/ Night  White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual  Digital Noise Reduction Off/ Auto/ Low/ Mid/ High  Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection 4 areas  Object Detection -  Video Analytic  (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	AGC	0 ~ 10
White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual Digital Noise Reduction Off/ Auto/ Low/ Mid/ High Image Adjustment HLC, Stabilizer, Gamma Text OSD 9 lines, settable size, color, position, etc. Smart Video ROI (Region of Interest) 8 areas Privacy Masking 8 Areas Analytics Motion Detection 4 areas Object Detection - Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Back Light Mode	BLC, HLC, WDR, ACE
White Balance Auto/ Indoor/ Outdoor/ OnePush/ Manual Digital Noise Reduction Off/ Auto/ Low/ Mid/ High Image Adjustment HLC, Stabilizer, Gamma Text OSD 9 lines, settable size, color, position, etc. Smart Video ROI (Region of Interest) 8 areas Privacy Masking 8 Areas Analytics Motion Detection 4 areas Object Detection - Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Day-Night Mode	Auto/ Day/ Night
Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection 4 areas  Object Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	White Balance	Auto/ Indoor/ Outdoor/ OnePush/ Manual
Image Adjustment HLC, Stabilizer, Gamma  Text OSD 9 lines, settable size, color, position, etc.  Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection 4 areas  Object Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection	Digital Noise Reduction	Off/ Auto/ Low/ Mid/ High
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Smart Video ROI (Region of Interest) 8 areas  Privacy Masking 8 Areas  Analytics  Motion Detection 4 areas  Object Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection		
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Analytics  Motion Detection 4 areas  Object Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection		
Motion Detection 4 areas  Object Detection -  Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection		U / 1 Cas
Object Detection -  Video Analytic (Option) Motion detection. Optional: ROI,  Tripwire, Tampering, Face Detection	•	A areas
Video Analytic (Option) Motion detection. Optional: ROI, Tripwire, Tampering, Face Detection		- 1 01003
Video Analytic Tripwire, Tampering, Face Detection		(Ontion) Motion detection Ontional DO
INELWOIK	Notwork	impulie, rampering, race Detection
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Security	IP Filtering, HTTPS, Encrypted & Basic
Security	Authentication, Management White List
Supported Protocols	HTTP, RTP/RTSP (Uni/Multicast), TCP/IP
	(v4/v6), UDP, FTP, Telnet, HTTPS, RARP,
	SNMP (option), DHCP, NTP, SMTP client, uPnP,
	ZeroConf
DDNS	www.ipcctvdns.com
Interface	RJ45 Ethernet 10/100Mbps
Cybersecurity	
Asymmetric Encryption Algorithm	RSA 2048 bits
Digital Signature Algorithm	RSA 2048 bits
Symmetric Encryption Algorithm	AES-128, AES-256
Cryptographic Hash Functions	SHA-256, MD5
Token Authentication Code	SHA-256, MD5
Key Exchange Protocols	RSA Key Exchange
Certificate	X.509
System Integration	
Application Programing Interface	SDK, ONVIF Profile S
Event Condition	Motion detection, audio detection, external digital
LVGIIL GOHAILION	input, external input data, SD card error
Event Action	Pre-alarm & Post-alarm buffer
	Image upload: FTP (periodic, buffer)
	Notification: email, HTTP, TCP, UDP
	External digital output
Peripheral & Auxiliary I/O	
Onboard Recording	MicroSD card slot, support up to 1TB
	Line in, line out
Audio	Audio compression: G.711-ulaw, Sampling rate
, ladio	8KHz, 16bit, Mono
	Audio streaming: 2-way
External alarm	4 digital input, 2 digital output (NO/NC)
Serial interface	1 RS485
Video out	CVBS (SD analog)
Software	
Web Browser	IE, Chrome, Edge
Mobile Viewer	iOS, Android
CMS	Smart Multi Viewer and Player
NVR	SmartNVR (up to 9 channels free license)
Device manager	IP Installer
General	
Case/ Color	Metal
Power Supply	DC12V or PoE 802.3at
Power Consumption	Indoor : Operating (1.5A)
	Outdoor: Operating (2.5A), Max (Heater 5W /
	Fan On)
Operating Environment	-40°C ~ +60°C, 0% ~ 90% RH
- p - 2 G 2	172Ø x 171.2(L) x 161.6(H) mm
Dimension	(In-Ceiling Type Standard)
Weight	About 2200g without Power Supply
Protection	IP66
Certifications	KC, CE, FCC, RoHS
Included Accessories	DC adapter 12V/5A, wall-mount bracket

Note: Specifications are subject to change without notice for product improvement.